KARNATAKA STATE ROAD TRANSPORT CORPORATION
ಕರ್ನಾಟಕ ರಾಜ್ಯ ರಸ್ತೆ ಸಾರಿಗೆ ನಿಗಮ

CENTRAL OFFICES; ಕೇಂದ್ರ ಕಛೇರಿ

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KST/CO/ME(P)/2693/2018-19 Date: 29 -10-2018.

Chief Mechanical Engineer(M),
KSRTC, Central Offices,
Bangalore.

Sir,

Subject:– Regarding providing revised technical specifications for Sealants.

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With regard to the above subject, and as desired by the maintenance department the revised technical specifications for sealants is hereby enclosed. The same may be forwarded to the Purchase branch for further needful action please.

Yours faithfully,

CHIEF MECHANICAL ENGINEER(P)

Copy fwcs to Controller of Stores and Purchases, KSRTC, Central Offices, Bangalore for information.

ASO
for info pl

KARNATAKA STATE ROAD TRANSPORT CORPORATION

Mechanical Engineer (M) Department
Central Offices, BENGALURU – 560 027

Specifications for Polyurethane Sealants for Bus Body application

Sl.No.	Description	Requirement
1	**Weathering resistant polyurethane sealant for metal to metal sealing:**	
	Requirement: Multi Purpose, Non Sag , Single part plastic, highly resistant to UV radiation, fast curing, polyurethane based adhesive sealant which cures on exposure to atmospheric moisture to form a high performance permanently flexible non sag adhesive sealant. Good resistance to weathering and ageing. Sealant should comply to EN45545 Standard and manufacturer should provide a test certificate for the same.	
	Technical Product Data:	
1.1	Chemical Base	One Part Polyurethane
1.2	Cure Mechanism	Moisture Curing Polyurethane
1.3	Density (DIN 53479) (Uncured)	1.23 to 1.40 gm/cc
1.4	Skin Time @ 23 degree C and 50 % RH	Minimum 50 minutes.
1.5	Curing at 23°C / 50 % RH	3mm/ 24 Hrs
1.6	Hardness Shore A (DIN 53504)	55
1.7	Elongation at Break (DIN 53504)	450% Minimum
1.8	Tensile Strength (DIN 53504)	5.5 N/mm^2 Minimum
1.9	Application Temperature	+5°C to +35°C
1.10	Service temperature	-40°C to +90°C
1.11	Colour	Black / White
1.12	Shelf Life (Stored below 23 degree C)	9 Months from the date of manufacturing or 5 months from the date of deliveries.
2	**Weathering resistant polyurethane sealant for metal to ceramic frit glass:**	
	Requirement: Multi Purpose, Non Sag , Single part plastic, highly resistant to UV radiation, fast curing, polyurethane based adhesive sealant which cures on exposure to atmospheric moisture to form a high performance permanently flexible non sag adhesive sealant. Good resistance to weathering and ageing. Sealant should comply to EN45545 Standard and manufacturer should provide a test certificate for the same.	
	Technical Product Data:	
2.1	Chemical Base	One Part Polyurethane
2.2	Cure Mechanism	Moisture Curing Polyurethane
2.3	Density (DIN 53479) (Uncured)	1.23 to 1.40 gm/cc
2.4	Skin Time @ 23 degree c and 50 % RH	Minimum 50 minutes
2.5	Curing at 23°C / 50 %RH	3mm/ 24 Hrs
2.6	Hardness Shore A (DIN 53504)	55
2.7	Elongation at Break (DIN 53504)	450% Minimum
2.8	Tensile Strength (DIN 53504)	5.5 N/mm2 Minimum
2.9	Application Temperature	+5°C to +35°C
2.10	Service temperature	-40°C to +90°C
2.11	Colour	Black
2.12	Cleaner or Activator	Isopropanol in aqueous solution
2.13	Primer	Black- Single Step Primer
2.14	Fire Norms	Shall meet EN45545 (Suppliers to enclose EN 45545 certificate)
2.15	Shelf Life (Stored below 23 degree C)	9 Months from the date of manufacturing or 5 months from the date of deliveries.

3	**Adhesive for Bonding Purpose (Metal to Metal, Metal to FRP and Metal to Wood)**	
	Requirement: Multi Purpose, Non Sag , Single part plastic, highly resistant to UV radiation, fast curing, polyurethane based adhesive sealant which cures on exposure to atmospheric moisture to form a high performance permanently flexible non sag adhesive sealant. Good resistance to weathering and ageing. Sealant should comply to EN45545 Standard and manufacturer should provide a test certificate for the same.	
	Technical Product Data:	
3.1	Chemical Base	One Part Polyurethane
3.2	Cure Mechanism	Moisture Curing Polyurathene
3.3	Density (DIN 53479) (Uncured)	1.23 to 1.40 gm/cc
3.4	Skin Time @ 23 degree c and 50 % RH	Minimum 50 minutes
3.5	Curing at 23°C / 50 %RH	3mm/ 24 Hrs
3.6	Hardness Shore A (DIN 53504)	55
3.7	Elongation at Break (DIN 53504)	450% Minimum
3.8	Tensile Strength (DIN 53504)	5.5 N/mm^2 Minimum
3.9	Application Temperature	+5°C to +35°C
3.10	Service temperature	-40°C to +90°C
3.11	Colour	Black
3.12	Cleaner or Activator	Isopropanol in aqueous solution
3.13	Primer	Black
3.14	Fire Norms	Shall meet EN45545 (Suppliers to enclose EN 45545 certificate)
3.15	Shelf Life (Stored below 23 degree C)	9 Months from the date of manufacturing or 5 months from the date of deliveries.
4	**Primer for Bonding and Direct Glazing:**	
	Requirement: Pigmented, Solvant-based Primer for various substrates.	
4.1	Chemical base	Solvent-based polyurethane solution
4.2	Density	0.99gm/cc approx
4.3	Flash Off	Above 5 Degree
4.4	Dry Time	5 Minutes Minimum & 24 Hours maximum
4.5	Solid Contents	25% Approx
4.6	Consumption	Depending on substrate porosity, 50 to 150 ml per m^2 depending on substrates
4.7	Shelf Life (Storage below 23 degree C)	12 Months from the date of manufacturing or 8 months from the date of deliveries.

Chief Mechanical Engineer (M)

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Chief Mechanical Engineer (P)

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